

1st. The length of the Brookville route can only be given by reference to the route surveyed by Mr. Trimble, the length of which is stated in his report to be 76 miles, from Baltimore to the mouth of the Seneca, points which would be common to the Brookville route.

The Brookville route on the distance surveyed is 5.85 miles shorter than that portion of the Seneca route surveyed by Mr. Trimble, with which it can be immediately compared. These data will make the distance of the Brookville route from Baltimore to the mouth of the Seneca 70.15 miles.

2nd. We have no means of giving the length of any supposed route to the south, but it is reasonable to suppose that it would be shorter than the Brookville route. It is impossible to say how much tunnelling would be found necessary on it. The length of summit grade by such a route would be increased and therefore, a lower summit *level* would have to be assumed—we cannot, therefore, from the surveys already made and which had reference to the summit level of the Brookville route, draw conclusions worthy of any confidence, as to how much the tunnelling might be reduced by a lower route to the South. All the data at our command, with reference to this subject are given on the maps, and detailed in the report to you of Jan. 3rd.

3rd. The maps, on a scale of two inches to the mile, and which embodies all the measurements contained in the field notes it is presumed, will furnish the information desired, in reference to field notes.

4th. In our report already submitted, the results of the measurements of such streams as were gauged, are given—these do not, however, comprehend all the streams to which recourse might be had, but only the principal ones. Until the canal route was traced and also the feeder routes, it was impossible to determine the proper points on the streams at which observations of this description would be fairly applicable. Such observations should be taken at the points of entrance of the feeders, or at the places where these streams would actually be tapped.—The map which accompanied Mr. Trimble's report, enabled me to designate very nearly positions for the construction of the small dams necessary to such observations, on the more remarkable streams; and fortunately these assumed points have not varied materially from those which our actual surveys have since established. But the accuracy of Mr. Trimble's maps is only appreciable on the leading streams. The smaller ones applicable to the new route not having been surveyed by him,